CLAIMS:

1.   Method of determining a structure of a moving object from an at least
two dimensional data set, the method comprising the steps of: applying a model of the
structure to the data set; performing an adaptation of the model to the data set;
estimating a location of at least one portion of the structure by using the adapted model.

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2.   The method of claim 1, wherein a first image is generated from the data
set; and wherein, in at least the estimated location of the at least one portion of the
structure, the adapted model is overlaid onto a second image which is based on the data
set.

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3.   The method of claim 1, wherein the data set comprises at least a third
and a fourth image, wherein the third image relates to a first point in time or first
projection and the fourth image relates to a second point in time or second projection,
the first and second points in time and the first and second projections being different;
15   wherein parameters of the model are adapted on the basis of a similarity of the model to
the structure; and wherein the model is projected into a third projection of the first
image.

4.   The method of claim 3, wherein, for improving an image quality of a
20   fifth image, the third image and the fourth image are superimposed; wherein, for
superimposing the third and fourth images, the adapted model is used.

5.   The method of claim 1, wherein the model is a deformable model; and
wherein the adaptation of the model is performed by an energy minimization of an
25   internal and an external energy of the model.

6.   The method of claim 1, wherein the model is a statistical model of a coronary tree of a human heart and wherein the data set relates to x-ray angiography data.

7.   Image processing device, comprising: a memory for storing an at least two dimensional data set; and an image processor for determining a structure of a moving object from the at least two dimensional data set, wherein the image processor is adapted to perform the following operation: applying a model of the structure to the data set; performing an adaptation of the model to the data set; estimating a location of at least one portion of the structure by using the adapted model.

8.   The image processing device of claim 7, wherein a first image is generated from the data set; wherein, in at least the estimated location of the at least one portion of the structure, the adapted model is overlaid onto a second image which is based on the data set.

9.   The image processing device of claim 7, wherein the data set comprises at least a third and a fourth image, wherein the third image relates to a first point in time or first projection and the fourth image relates to a second point in time or second projection, the first and second points in time and the first and second projections being different; wherein parameters of the model are adapted on the basis of a similarity of the model to the structure; and wherein the model is projected into a third projection of the first image; wherein, for improving an image quality of a fifth image, the third image and the fourth image are superimposed; wherein, for superimposing the third and fourth images, the adapted model is used.

10.   Computer program for an image processing device, wherein the computer program is adapted to cause a processor of the image processing device to perform the following operation when the computer program is executed on the processor: applying a model of the structure to the data set; performing an adaptation of the model to the data set; estimating a location of at least one portion of the structure by using the adapted model.